

SEMICONDUCTOR SENSING DEVICE

ABSTRACT OF THE DISCLOSURE

A semiconductor sensing device in which a sensing layer is exposed to a medium being tested in an area below and/or adjacent to a contact. In one embodiment, the device comprises a field effect transistor in which the sensing layer is disposed below a gate contact. The sensing layer is exposed to the medium by one or more perforations that are included in the gate contact and/or one or more layers disposed above the sensing layer. The sensing layer can comprise a dielectric layer, a semiconductor layer, or the like.